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HICKMAN PALERMO TRUONG & BECKER, LLP
2055 GATEWAY PLACE
SUITE 550
SAN JOSE, CA 95110

EXAMINER	
SHIN, KYUNG H	

ART UNIT	PAPER NUMBER
2143	

DATE MAILED: 12/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/866,143	KIRNOS, ILYA	
	Examiner	Art Unit	
	Kyung H. Shin	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *8/14/06*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 – 33, 76 - 88, 90 - 107* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 – 33, 76 - 88, 90 - 107* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *7/27/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This action is responding to application RCE filed 1/9//2006 and arguments filed **8/14/06.**

2. Claims **1 – 33, 76 - 88, 90 - 107** are pending. Claims **1 - 33, 76 - 88, 90 - 107** was amended with RCE. Claims **34 - 75** was cancelled by Election/Restrictions. Claim **89** was cancelled. Independent claims are **1, 12, 25, 31, 76, 87, 99, 105**.

Response to Arguments

3. Applicant's arguments filed 8/14/06 have been fully considered but they are not persuasive.

3.1 Applicant argues that the referenced prior art does not disclose *" ... records any information about a file to a comparison file ... " (see Remarks Page 3, Line 18) ; " ... recording information about one or more items in a file system to a comparison file ... " (see Remarks Page 3, Lines 20-21)*

A transaction being performed on a file system is a change to that file system. Verma discloses that information concerning the changes to a file system are stored. This stored information is equivalent to a comparison file. The completion of a transaction on a file system synchronizes that file system with the required file system update information.

The Verma (6,856,993) prior art discloses a file management system. (see Verma col. 2, lines 14-17) The Verma (6,856,993) and Bailey (6,473,767)

prior art combination discloses a file management system with a comparison file directory utilized to perform comparison operations. (see Verma col. 16, lines 39-44: 1st, 2nd and 3rd operational states (i.e. working item states) for first and second files, separate file handle (i.e. working item) for separate first and second file) and (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)

The Verma prior art discloses file system transactions, such as a movement of a file to a new location. This is a file system update operation. (see Verma col. 2, lines 18-20; col. 2, lines 33-35: file system update operation (i.e. delete, create, move))

By applicant's specification operations performed, *" ... include the operations of editing items, moving items, making new items, copying items, deleting items and combinations thereof. ... " (see specification paragraph [0052].* The Verma prior art discloses that the tracked transaction operations are, " ... read, write, delete, and rename ... " operation. (see Verma col. 2, lines 18-20; col. 2, lines 33-35: file system operations, new file or create operation) These are equivalent type operations. And, the Verma prior art records the information concerning file system transactions in an object. (see Verma col. 7, lines 6-7: transaction object (i.e. comparison file))

Applicant's invention tracks the operations performed on a file system and stores this information. The Verma prior art tracks the operations performed on a file system and stores this information. The application of the stored operations

information is applied to the file system synchronization is performed. These are equivalent functions.

3.2 Applicant argues that the referenced prior art does not disclose *" ... a comparison file to determine changes that have occurred in the file system ... " (see Remarks Page 3, Lines 19-20); " ... comparing the location information for the one or more items in the comparison file to the working version to determine if any of the corresponding one or more working items has been moved to a new location in the working version ... " (see Remarks Page 3, Lines 21-24)*

The Verma and Bailey prior art combination discloses the capability to compare directory information to determine updates. (see Verma col. 16, lines 39-44: 1st, 2nd and 3rd operational states (i.e. working item states) for first and second files, separate file handle (i.e. working item) for separate first and second file) and (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)

3.3 The examiner has considered the applicant's remarks concerning a file system synchronization system that utilizes a comparison file detailing the file system modifications.

After an additional analysis of the applicant's invention, remarks, and a search of the available prior art, it was determined that the current set of prior art consisting of **Verma (6,856,993)**, **Rudoff (6,636,878)**, **Wolff (6,101,508)**,

and **Bailey** (**6,473,767**) discloses the applicant's invention including disclosures in Remarks dated August 14, 2006.

Claim Rejection - 35 USC § 103

4. **Claims 1 - 3, 6, 9, 12 - 16, 21, 24, 25, 31 - 33, 76 - 78, 81, 84, 87, 88, 90, 95, 99, 105 - 107** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Verma et al.** (US Patent No. 6,856,993) in view of **Bailey et al.** (US Patent No. 6,473,767) and further in view of **Rudoff** (US Patent No. 6.636.878).

Regarding Claims 1, 76, Verma discloses a computer-implemented method for managing files (see Verma col. 8, lines 54-61; col. 8, lines 20-25: file management operational system), the method comprising:

b) generating a working version of a portion of the file system, the working version including at least a one or more working items that corresponds to the one or more items located in the file system; (see Verma col. 16, lines 39-44: 1st and 2nd operational states (i.e. working item states) for same file)

Bailey discloses:

a) recording information about one or more items in a file system to a comparison file, wherein the information the information recorded to the comparison file includes location information to identify where in the file system the one or more items are located; (see Verma col. 9, lines 10-17: file handler (i.e. comparison

file or working item) for file system management operations) and (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)

d) upon a synchronization event, comparing using the location information for the one or more items in the comparison file to the working version to determine if any of the corresponding one or more working items has been moved to a new location in the working version. (see Verma col. 16, lines 39-44: 1st, 2nd and 3rd operational states (i.e. working item states) for first and second files, separate file handle (i.e. working item) for separate first and second file) and (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)

And, Rudoff discloses:

c) persistently maintaining the working version; (see Rudoff col. 6, lines 33-40; col. 6, lines 41-47; col. 7, lines 28-33: file system working information (i.e. comparison information between two files) maintained, information is persistent)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to enable the usage of a comparison file with file directory entries for processing as taught by Bailey, and to enable usage of a working version for file modifications (i.e. working version) that is persistent as taught by Rudoff. One of ordinary skill in the art would be motivated to employ Bailey in order to enable a logical file structure with the capability to handle file deletion capabilities (see Bailey col. 1, lines 13-17: "... file system is to enable a user to create a logical structure of files ... manage the secondary storage of. this data onto disk or tape, controlling its retrieval and security ... " ; col. 2, lines 36-38: " ... file and library' systems do not have the

ability to easily handle deleted files so that copies are automatically deleted... "), and to employ Rudoff in order to optimize storage requirements in the manipulation of working versions in the management of file systems (see Rudoff col. 3, lines 34-38: " ... *mechanism for replicating an individual file or group of selected files on a computer system that minimizes the storage space required when there are portions of the original file and the copy that remain the same ...* ").

Regarding Claims 2, 77, Verma discloses the computer-implemented method of claims 1, 76, wherein if any of the corresponding working items has been moved in the working version, the method includes causing the item in the file system to move to a corresponding new location in the file system. (see Verma col. 16, lines 39-44: 1st, 2nd, 3rd and 4th operational states (i.e. working item states) for same file)

Regarding Claims 3, 78, Verma discloses the computer-implemented method of claims 1, 76, wherein comparing the information for the one or more items in the comparison file to the working version to determine if any of the corresponding one or more working items has been moved to a new location includes determining if any of the one or more working items has a new name. (see Verma col. 28, lines 30-37; col. 8, lines 26-28: rename operation performed and file system update completed)

Regarding Claims 6, 81, Verma discloses the computer-implemented method of claims 1, 76, further including signaling the file system to delete the item in the file system if

corresponding item has been deleted from the working version. (see Verma col. 11, lines 10-12; col. 28, lines 14-20; col. 8, lines 26-28: delete operation performed and file system update completed)

Regarding Claims 9, 84, Verma discloses the computer-implemented method of claims 1, 76, further comprising determining if the one or more first working items was edited subsequent to making the working version. (see Verma col. 11, lines 10-12; col. 8, lines 26-28: edit operation performed and file system update completed)

Regarding Claim 12, Verma discloses a computer-implemented method for managing files (see Verma col. 8, lines 54-61; col. 8, lines 20-25: file management operational system), the method comprising:

b) making a working version of a portion of the file system, wherein the working version includes one or more working items corresponding to the one or more items in the file system; (see Verma col. 3, lines 13-19: isolation directory (i.e. working item) for file system information manipulation)

Bailey discloses:

a) recording information about one or more items in a file system to a comparison file, wherein the information recorded to the comparison file includes location information to identify where in the file system the one or more items is located; (see Verma col. 9, lines 10-17: file handler (i.e. comparison item) for file system

management operations) and (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)

d) upon a synchronization event, comparing information in the comparison file to the working version to determine if a first working item in the working version was copied from a second working item in the working version. (see Verma col. 11, lines 10; col. 8, lines 26-28: read/write (i.e. copy) operation performed and file system update completed) and (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)

And, Rudoff discloses:

c) persistently maintaining the working version; (see Rudoff col. 6, lines 33-40; col. 6, lines 41-47; col. 7, lines 28-33: file system working information (i.e. comparison information between two files) maintained, information is persistent)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to enable the usage of a comparison file with file directory entries for processing as taught by Bailey, and to enable usage of a working version for file modifications (i.e. working version) that is persistent as taught by Rudoff. One of ordinary skill in the art would be motivated to employ Bailey in order to enable a logical file structure with the capability to handle file deletion capabilities (see Bailey col. 1, lines 13-17 ; col. 2, lines 36-38), and to employ Rudoff in order to optimize storage requirements in the manipulation of working versions in the management of file systems (see Rudoff col. 3, lines 34-38).

Regarding Claims 13, 88, Verma discloses the computer-implemented method of claims 12, 87, further comprising causing the portion of the file system to include the first working item after determining the first working item was copied from the second working item. (see Verma col. 11, lines 10-12; col. 8, lines 26-28: read/write (i.e. copy) operation performed and completed)

Regarding Claim 14, Verma discloses the computer-implemented method of claims 12, 87, wherein the second working item originates from a first item in the portion of the file system. (see Verma col. 16, lines 39-44: 1st and 2nd operational states (i.e. working item states) for same file)

Regarding Claim 15, Verma discloses the computer-implemented method of claim 13, wherein the second working item is created as new after the working version is made. (see Verma col. 11, lines 10-12: file creation (i.e. new) operation performed)

Regarding Claims 16, 90, Verma discloses the computer-implemented method of claims 13, 88, wherein a content of the first working item is different than a content of the second working item. (see Verma col. 9, lines 10-17: separate first and second file handles (i.e. first and second working items) for manipulation of two separate files)

Regarding Claim 21, Verma discloses the computer-implemented method of claim 12, further comprising determining if the first working item was edited after being copied

from the second working item. (see Verma col. 11, lines 10-12: read/write (i.e. edit) operation performed)

Regarding Claim 24, Verma discloses the computer-implemented method of claim 12, wherein comparing information in the comparison file to the working version to determine if a first working item in the working version was once copied from a second working item in the working version includes comparing a content of the first working item to a content of the second working item. (see Verma col. 11, lines 10-12: determination of edited (i.e. changed contents) file information via file handle (i.e. working item)) and (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to enable the usage of a comparison file with file directory entries for processing as taught by Bailey. One of ordinary skill in the art would be motivated to employ Bailey in order to enable a logical file structure with the capability to handle file deletion capabilities. (see Bailey col. 1, lines 13-17 ; col. 2, lines 36-38)

Regarding Claims 25, 99, Verma discloses a computer-implemented method for managing files (see Verma col. 8, lines 54-61; col. 8, lines 20-25: file management operational system), the method comprising:

b) making a working version of a portion of the file system, the working version including at least a first working item originating from the first item, the first working item initially being located at a first working location, the first working location corresponding to the first location information; (see Verma col. 16, lines 39-44: 1st and 2nd operational states (i.e. working item states) for same file)

Bailey discloses:

a) recording information about a file system to a comparison file, the information identifying at least a first item in the file system located at a first location, the first location being identifiable by a first location information; (see Verma col. 9, lines 10-17: file handler (i.e. comparison item) for file system management operations) and (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)

d) upon a synchronization event, comparing information in the comparison file to the working version to detect if at least one of two operations were performed on the working version, the operations including changing the first working location information for the first working item, and editing a content of the first working item. (see Verma col. 11, lines 10-12: file management operation(s) (i.e. editing) performed on file indicated by file handle (i.e. working item)) and (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)

And, Rudoff discloses:

c) persistently maintaining the working version; (see Rudoff col. 6, lines 33-40; col. 6, lines 41-47; col. 7, lines 28-33: file system working information (i.e. comparison information between two files) maintained, information is persistent)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to enable the usage of a comparison file with file directory entries for processing as taught by Bailey, and to enable usage of a working version for files modification (i.e. working version) that is persistent as taught by Rudoff. One of ordinary skill in the art would be motivated to employ Bailey in order to enable a logical file structure with the capability to handle file deletion capabilities (see Bailey col. 1, lines 13-17 ; col. 2, lines 36-38), and to employ Rudoff in order to optimize storage requirements in the manipulation of working versions in the management of file systems (see Rudoff col. 3, lines 34-38).

Regarding Claims 31, 105, Verma discloses a method for managing files (see Verma col. 8, lines 54-61; col. 8, lines 20-25: file system management operations), the method comprising:

b) making a working version of a portion of the file system, the working version including at least a first working item originating from the first item, the first working item initially being located at a second location, the second location being identifiable by the first location information; (see Verma col. 16, lines 39-44: 1st and 2nd operational states (i.e. working item states) for same file)

Bailey discloses:

a) recording information about a file system to a comparison file, the information identifying at least a first item in the file system located at a first location, the first location being identifiable by a first location information; (see Verma col. 9, lines 10-17: file handler (i.e. working item) for file system management operations) and (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)

d) using information in the comparison file and about the working version to determine if a compound operation was performed on the first working item, the compound operation including at least two successive operations from a set of operations that consist of changing the first location information for the first working item, making a first working copy from the first working item, and editing a content of the first working item. (see Verma col. 11, lines 10-12; col. 16, lines 39-44; col. 8, lines 26-28: at least two (i.e. compound) read/write (i.e. copy, edit) operations performed and file system update completed) and (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)

And, Rudoff discloses:

c) persistently maintaining the working version; (see Rudoff col. 6, lines 33-40; col. 6, lines 41-47; col. 7, lines 28-33: file system working information (i.e. comparison information between two files) maintained, information is persistent)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to enable the usage of a comparison file with file directory entries for processing as taught by Bailey, and to enable usage of a working

version for files modification (i.e. working version) that is persistent as taught by Rudoff. One of ordinary skill in the art would be motivated to employ Bailey in order to enable a logical file structure with the capability to handle file deletion capabilities (see Bailey col. 1, lines 13-17 ; col. 2, lines 36-38), and to employ Rudoff in order to optimize storage requirements in the manipulation of working versions in the management of file systems (see Rudoff col. 3, lines 34-38).

Regarding Claims 32, 106, Verma discloses the method of claims 31, 105, further comprising causing the portion of the file system to incorporate changes made by operations performed on the working version so that the first item matches the first working item. (see Verma col. 8, lines 26-28: read/write (i.e. edit) operation completed or committed within actual file (i.e. actual file contents matches working item))

Regarding Claims 33, 107, Verma discloses the method of claims 31, 105, wherein for one of the at least two compound operations being making a first working copy from the first working item, the method further includes determining if a selected working item in the working version was once copied from the first working item. (see Verma col. 11, lines 10-12; col. 8, lines 26-28: read/write (i.e. copy) operation performed and completed)

Regarding Claim 87, Verma discloses a computer readable medium carrying instructions for managing files (see Verma col. 8, lines 54-61; col. 8, lines 20-25: file

management operations) on different computers, the instructions including instructions for performing the steps of:

b) making a working version of a portion of the file system, wherein the working version includes one or more working items corresponding to the one or more items in the file system;

Bailey discloses:

a) recording information about one or more items in a file system to a comparison file making a working version of a portion of the file system, wherein the information recorded to the comparison file includes location information to identify where in the file system the one or more items is located; (see Verma col. 9, lines 10-17: file handler (i.e. comparison file or working version) for file system management operations) and (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)

d) upon a synchronization event, comparing information in the comparison file to the working version to determine if a first working item in the working version was once copied from a first working item location in the working version. (see Verma col. 11, lines 10-12: 1st and 2nd operational states (i.e. working item states) for same file) and (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)

And, Rudoff discloses:

c) persistently maintaining a working version; (see Rudoff col. 6, lines 33-40; col. 6, lines 41-47; col. 7, lines 28-33: file system working information (i.e. comparison information between two files) maintained, information is persistent)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to enable the usage of a comparison file with file directory entries for processing as taught by Bailey, and to enable usage of a working version for files modification (i.e. working version) that is persistent as taught by Rudoff. One of ordinary skill in the art would be motivated to employ Bailey in order to enable a logical file structure with the capability to handle file deletion capabilities (see Bailey col. 1, lines 13-17 ; col. 2, lines 36-38), and to employ Rudoff in order to optimize storage requirements in the manipulation of working versions in the management of file systems (see Rudoff col. 3, lines 34-38).

Regarding Claim 95 (Currently Amended), Verma discloses the method of claim 87, further comprising determining if the first working item was edited after being copied from the second working item. (see Verma col. 11, lines 10-12: read/write (i.e. edit) operation performed)

5. **Claims 4, 5, 7, 8, 10, 11, 17 - 20, 22, 23, 26 - 30, 79, 80, 82, 83, 85, 86, 91 - 94, 96 - 98, 100 - 104** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Verma-Bailey-Rudoff** and further in view of **Wolff** (US Patent No. 6,101,508).

Regarding Claims 4, 29, 79, 103, Verma discloses wherein generating the working version of a portion of the file system in the one or more working items of the comparison file. (see Verma col. 2, lines 33-35: file management operations) Verma does not specifically disclose a creation time as part of the working file system management item. However, Wolff discloses the computer-implemented method of claims 3, 25, 78, 99, wherein includes recording a creation time. (see Wolff col. 23, lines 20-30; col. 69, lines 21-28: directory (file management) information specifically includes a creation time)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to utilize a file system management item containing a creation time parameter as taught by Wolff. One of ordinary skill in the art would be motivated to employ Wolff in order to optimize and improve distributed processing of data within a network environment. (see Wolff col. 2, lines 28-34: "*... an improved system and method for distributed processing over a network ... a system would remove the bottlenecks and disadvantages associated with current distributed networks ... allow the distribution of processes to function and be managed in a cross platform environment ...* ")

Regarding Claims 5, 80, Verma discloses wherein comparing the location information for the one or more items in the comparison file and about the working version to determine if any of the corresponding one or more working items has been moved to a new location includes locating the one or more working items in the working version.

(see Verma col. 2, lines 33-35; col. 16, lines 33-35: file system management operations) Verma does not specifically disclose a creation time as part of the working file system management item. However, Wolff discloses the computer-implemented method of claims 3, 78, wherein using a creation time. (see Wolff col. 23, lines 20-30; col. 69, lines 21-28: directory (file management) information specifically a creation time)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to utilize a file management item containing a creation time parameter as taught by Wolff. One of ordinary skill in the art would be motivated to employ Wolff in order to optimize and improve distributed processing of data within a network environment. (see Wolff col. 2, lines 28-34)

Regarding Claims 7, 82, Verma discloses the computer-implemented method of claims 4, 81, further including using the creation time of the one or more working items to determine if any of the one or more first working items has been deleted from the working version and signaling the file system to delete the corresponding item in the file system. (see Verma col. 11, lines 10-12; col. 28, lines 14-20: deletion operation performed and file system update completed)

Regarding Claims 8, 83, Verma discloses wherein making a working version of a portion of the one or more working items in the comparison file. (see Verma col. 2, lines 33-35: file management operations) Verma does not specifically disclose a

modification time parameter as part of the working file management item. However, Wolff discloses the computer-implemented method of claims 4, 79, wherein includes recording a modification time. (see Wolff col. 23, lines 20-30; col. 69, lines 21-28: directory (file management) information specifically a modification time) and Bailey discloses a comparison file. (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to utilize a file management item containing a modification time parameter as taught by Wolff, and to enable the usage of a comparison file with file directory entries for processing as taught by Bailey. One of ordinary skill in the art would be motivated to employ Wolff in order to optimize and improve distributed processing of data within a network environment (see Wolff col. 2, lines 28-34), and to employ Bailey in order to enable a logical file structure with the capability to handle file deletion capabilities (see Bailey col. 1, lines 13-17 ; col. 2, lines 36-38).

Regarding Claims 10, 85, Verma discloses wherein further comprising determining if the one or more working items were edited subsequent to making the working version of the one or more working items. (see Verma col. 11, lines 10-12: read/write (i.e. edit) operation performed) Verma does not disclose a modification time parameter. However, Wolff disclose the computer-implemented method of claims 8, 83, wherein a modification time. (see Wolff col. 23, lines 20-30; col. 69, lines 21-28: directory (file

management) information specifically a modification time)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to utilize a file system management item containing a modification time parameter as taught by Wolff. One of ordinary skill in the art would be motivated to employ Wolff in order to optimize and improve distributed processing of data within a network environment. (see Wolff col. 2, lines 28-34)

Regarding Claims 11, 86, Verma does not disclose a modification time parameter. However, Wolff discloses the computer-implemented method of claims 10, 85, further comprising determining if a subsequent modification time of the one or more working items is different than the recorded modification time for the one or more working items. (see Wolff col. 23, lines 20-30; col. 69, lines 21-28; col. 75, lines 6-10: directory (file management) information specifically a modification time, comparison of time parameters)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to utilize a file system management item containing a modification time parameter as taught by Wolff. One of ordinary skill in the art would be motivated to employ Wolff in order to optimize and improve distributed processing of data within a network environment. (see Wolff col. 2, lines 28-34)

Regarding Claims 17, 91, Verma discloses wherein making a working version in the comparison file for the one or more working items. (see Verma col. 2, lines 33-35: file

management operations) Verma does not specifically disclose creation and modification time parameters as part of the working file system management item. However, Wolff discloses the computer-implemented method of claims 14, 87, wherein includes recording both a creation time and a modification time (see Wolff col. 23, lines 20-30; col. 69, lines 21-28: directory (file management) information specifically a creation and a modification time) and Bailey discloses a comparison files. (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to utilize a file system management item containing creation and modification time parameters as taught by Wolff, and to enable the usage of a comparison file with file directory entries for processing as taught by Bailey. One of ordinary skill in the art would be motivated to employ Wolff in order to optimize and improve distributed processing of data within a network environment (see Wolff col. 2, lines 28-34), and to employ Bailey in order to enable a logical file structure with the capability to handle file deletion capabilities (see Bailey col. 1, lines 13-17 ; col. 2, lines 36-38).

Regarding Claims 18, 92, Verma discloses wherein comparing information in the comparison file to the working version to determine if a first working item in the working version was once copied from a second working item in the working version. (see Verma col. 2, lines 33-35; col. 16, lines 33-35; col. 11, lines 10-12: file system management operations (i.e. copy)) Verma does not specifically disclose creation and

modification time parameters as part of the working file system management item. However, Wolff discloses the computer-implemented method of claims 17, 91, wherein includes identifying a creation time and a modification time for the first working item. (see Wolff col. 23, lines 20-30; col. 69, lines 21-28: directory (file management:) information specifically a creation and a modification time) and Bailey discloses a comparison file. (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to utilize a file system management item containing creation and modification time parameters as taught by Wolff, and to enable the usage of a comparison file with file directory entries for processing as taught by Bailey. One of ordinary skill in the art would be motivated to employ Wolff in order to optimize and improve distributed processing of data within a network environment (see Wolff col. 2, lines 28-34), and to employ Bailey in order to enable a logical file structure with the capability to handle file deletion capabilities (see Bailey col. 1, lines 13-17 ; col. 2, lines 36-38).

Regarding Claims 19, 93, Verma discloses wherein comparing information in the comparison file to the working version to determine if a first working item in the working version was once copied from a second working item in the working version. (see Verma col. 2, lines 33-35; col. 16, lines 33-35: file management operations, determination of copy operation performed) Verma does not specifically disclose a

comparison of creation and modification time parameters. However, Wolff discloses the computer-implemented method of claims 18, 92, wherein detecting that the modification time of the first working item is before the creation time of the first working item. (see Wolff col. 23, lines 20-30; col. 69, lines 21-28; col. 75, lines 6-10: directory (file management) information specifically a creation and a modification time, comparison of creation times) and Bailey discloses a comparison file. (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to utilize a file system management item containing creation and modification time parameters as taught by Wolff, and to enable the usage of a comparison file with file directory entries for processing as taught by Bailey. One of ordinary skill in the art would be motivated to employ Wolff in order to optimize and improve distributed processing of data within a network environment (see Wolff col. 2, lines 28-34), and to employ Bailey in order to enable a logical file structure with the capability to handle file deletion capabilities (see Bailey col. 1, lines 13-17 ; col. 2, lines 36-38).

Regarding Claims 20, 94, Verma discloses wherein comparing information in the comparison file to the working version to determine if a first working item in the working version was once copied from a second working item in the working version (see Verma col. 9, lines 10-17; col. 11, lines 10-12: file handler (i.e. working item) for file system management operations, read/write (i.e. copy) operation performed) Verma

does not disclose modification time parameters and comparison of time parameters. However, Wolff discloses the computer-implemented method of claims 19, 93, wherein includes matching the modification time of the first working item with the modification time of the second working item. (see Wolff col. 23, lines 20-30; col. 69, lines 21-28; col. 75, lines 6-10: directory (file management) information specifically a creation and a modification time, comparison of creation times) and Bailey discloses a comparison file. (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to utilize a file management item containing a modification time parameter and a comparison of modification times as taught by Wolff, and to enable the usage of a comparison file with file directory entries for processing as taught by Bailey. One of ordinary skill in the art would be motivated to employ Wolff in order to optimize and improve distributed processing of data within a network environment (see Wolff col. 2, lines 28-34), and to employ Bailey in order to enable a logical file structure with the capability to handle file deletion capabilities (see Bailey col. 1, lines 13-17 ; col. 2, lines 36-38).

Regarding Claims 22, 96, Verma discloses wherein further comprising determining that the first working item is new. (see Verma col. 2, lines 33-35; col. 11, lines 10-12: creation (i.e. new) file system management operation performed) Verma does not specifically disclose a comparison of creation times. However, Wolff discloses the

computer-implemented method of claims 18, 92, wherein if a creation time is different than a creation time of all of the items identified by the comparison file and if the modification time for the first working item is greater than or equal to creation time for the first working item. (see Wolff col. 23, lines 20-30; col. 69, lines 21-28; col. 75, lines 6-10: directory (file management) information specifically a creation and a modification time, comparison of creation times)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to utilize a file system management item containing creation and modification time parameters and comparison of time parameters as taught by Wolff. One of ordinary skill in the art would be motivated to employ Wolff in order to optimize and improve distributed processing of data within a network environment. (see Wolff col. 2, lines 28-34)

Regarding Claims 23, 97, Verma discloses the computer-implemented method of claims 22, 96, further comprising causing the portion of the file system to include the first working item after determining the first working item is new. (see Verma col. 11, lines 10-12; col. 8, lines 26-28: creation (i.e. new) operation performed and completed)

Regarding Claim 26, Verma discloses wherein making a working version of a portion of the file system for the first working item in the comparison file, (see Verma col. 9, lines 10-17: file handler (i.e. working item) for file system management operations) Verma

does not specifically disclose a modification time. However, Wolff discloses the computer-implemented method of claims 25, 99, wherein the initial modification time recording a last instance when the first working item was either edited or created. (see Wolff col. 23, lines 20-30; col. 69, lines 21-28: directory (file management) information specifically a modification time)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to utilize a file system management item containing a modification time parameter as taught by Wolff. One of ordinary skill in the art would be motivated to employ Wolff in order to optimize and improve distributed processing of data within a network environment. (see Wolff col. 2, lines 28-34)

Regarding Claims 27, 101, Verma discloses wherein detecting the operation of editing the content of the first working item (see Verma col. 11, lines 10-12: read/write (i.e. edit) operation performed) Verma does not specifically disclose a modification time. However, Wolff discloses the computer-implemented method of claims 26, 100, wherein includes subsequently determining if the initial modification time was changed. (see Wolff col. 23, lines 20-30; col. 69, lines 21-28: directory (file management) information specifically a modification time)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to utilize a file system management item containing a modification time parameter as taught by Wolff. One of ordinary skill in the art would be motivated to employ Wolff in order to optimize and improve distributed

processing of data within a network environment. (see Wolff col. 2, lines 28-34)

Regarding Claims 28, 102, Verma discloses the computer-implemented method of claims 27, 101, further comprising causing the first item of the file system to include the edited content of the first working item. (see Verma col. 11, lines 10-12; col. 8, lines 26-28: completion of a read/write (i.e. edit) operation, contents of actual file updated)

Regarding Claims 30, 104, Verma discloses wherein comparing information in the comparison file to the working version to detect if at least one of two operations were performed on the working version includes locating the first working item in the working version. (see Verma col. 11, lines 10-12; col. 8, lines 26-28: one or more file system management operations performed and file system update completed) Verma does not specifically disclose a creation time parameter as part of the working file system management item. However, Wolff discloses the computer-implemented method of claims 29, 103, wherein using the creation time. (see Wolff col. 23, lines 20-30; col. 69, lines 21-28: directory (file management) information specifically a creation time) and Bailey discloses a comparison file. (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to utilize a file system management item containing a creation time parameter as taught by Wolff, and to enable the usage of a comparison file with file directory entries for processing as taught by Bailey. One of

ordinary skill in the art would be motivated to employ Wolff in order to optimize and improve distributed processing of data within a network environment (see Wolff col. 2, lines 28-34), and to employ Bailey in order to enable a logical file structure with the capability to handle file deletion capabilities (see Bailey col. 1, lines 13-17 ; col. 2, lines 36-38).

Regarding Claim 98, Verma discloses the method of claim 87, wherein using information in the comparison file and about the working version to subsequently determine if a first working item in the working version was once copied from a second working item in the working version includes comparing a content of the first working item to a content of the working item at the second working item location. (see Verma col. 11, lines 10-12: determination of edited (i.e. copied, changed contents) of file information via file handle (i.e. working item))

Regarding Claims 100, Verma discloses wherein making a working version of a portion of the file system for the first working item in the comparison file, (see Verma col. 9, lines 10-17: file handler (i.e. working item) for file system management operations) Verma does not specifically disclose a modification time. However, Wolff discloses the method of claims 25, 99, wherein the initial modification time recording a last instance when the first working item was either edited or created. (see Wolff col. 23, lines 20-30; col. 69, lines 21-28: directory (file management) information specifically a modification time)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to utilize a file system management item containing a modification time parameter as taught by Wolff. One of ordinary skill in the art would be motivated to employ Wolff in order to optimize and improve distributed processing of data within a network environment. (see Wolff col. 2, lines 28-34)

Conclusion

6. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyung H. Shin whose telephone number is (571) 272-3920. The examiner can normally be reached on 9:30 am - 6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

K H S
Kyung H Shin
Patent Examiner
Art Unit 2143

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KHS
Nov. 24, 2006

DAVID WILEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100